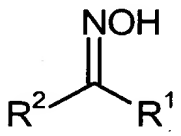
CLAIMS

1. A solvent extraction composition comprising one or more orthohydroxyarylaldoximes or orthohydroxyarylketoximes and one or more esters substituted with a hydroxy group.

2. A composition according to claim 1, additionally comprising a water immiscible organic solvent.

3. A composition according to either preceding claim, wherein the orthohydroxyaryl oxime or orthohydroxyarylketoxime is selected from the class of compounds represented by the Formula (1),



Formula (1)

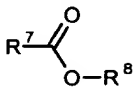
wherein

R^1 is hydrogen or an optionally substituted hydrocarbyl group

R^2 is an optionally substituted ortho-hydroxyaryl group,

and salts thereof.

4. A composition according to any one of claims 1 to 3, wherein the ester substituted with a hydroxy group is selected from the class of compounds represented by formula:



wherein one of R^7 or R^8 is a substituted hydrocarbyl group with at least one hydroxyl group and the other is an optionally substituted hydrocarbyl group.

5. A composition according to any one of claims 1 to 4, wherein the orthohydroxyarylketoxime is a 5-(C_9 to C_{14} alkyl)-2-hydroxyacetophenone oxime, preferably 5-nonyl-2-hydroxy-acetophenone oxime.

6. A composition according to any one of claims 1 to 5, wherein the orthohydroxyarylaldoxime is a 5-(C_9 to C_{14} alkyl)-2-hydroxybenzaldoxime, preferably 5-nonyl-2-hydroxy-benzaldoxime.

7. A composition according to any one of claims 1 to 6, wherein the ester substituted with a hydroxy group comprises a highly-branched hydroxy-ester comprising from 9 to 25 carbon atoms.

8. A composition according to any one of claims 1 to 7, wherein the hydroxy functionality of the ester substituted with a hydroxy group resides on R^8, and where R^8 is branched aliphatic group.

9. A composition according to any preceding claim wherein the ester substituted with a hydroxy group is 2,2,4-trimethyl-1,3-pentanediol mono-isobutyrate or 2,2,4-trimethyl-1,3-pentanediol monobenzoate

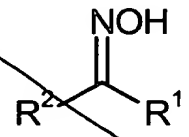
10. A process for the extraction of a metal from solution in which either an acidic solution containing a dissolved metal or an aqueous ammoniacal solution containing a dissolved metal is contacted with a solvent extraction composition comprising a water immiscible organic solvent and a water-immiscible solvent extractant, whereby at least a fraction of the metal is extracted into the organic solution, characterised in that the solvent extraction composition comprises one or more orthohydroxyarylaldoximes or orthohydroxyarylketoximes and one or more esters substituted with a hydroxy group.

11. A process according to claim 10 wherein there is a predominance of orthohydroxyarylaldoximes in relation to any orthohydroxyarylketoximes present in the solvent extraction composition

12. A process according to claim 10 wherein there is a predominance of orthohydroxyarylketoximes in relation to any orthohydroxyarylaldoximes present in the solvent extraction composition.

13. A process according to any one of claims 10 to 12, wherein the metal is copper, zinc, cobalt or nickel, and is preferably copper.

14. A process according to any one of claims 10 to 13, wherein the orthohydroxyaryl oxime or orthohydroxyarylketoxime is selected from the class of compounds represented by the Formula (1),



Formula (1)

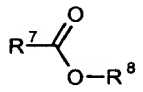
wherein

R^1 is hydrogen or an optionally substituted hydrocarbyl group

R^2 is an optionally substituted ortho-hydroxyaryl group,

and salts thereof.

15. A process according to any one of claims 10 to 14, wherein the ester substituted with a hydroxy group is selected from the class of compounds represented by formula:



Formula (2)

wherein one of R^7 or R^8 is a substituted hydrocarbyl group with at least one hydroxyl group and the other is an optionally substituted hydrocarbyl group

16. A process according to any one of claims 10 to 15, wherein the orthohydroxyarylketoxime is a 5-(C_9 to C_{14} alkyl)-2-hydroxyacetophenone oxime, preferably 5-nonyl-2-hydroxy-acetophenone oxime.

17. A process according to any one of claims 10 to 16, wherein the orthohydroxyarylaldoxime is a 5-(C_9 to C_{14} alkyl)-2-hydroxybenzaldoxime, preferably 5-nonyl-2-hydroxy-benzaldoxime.

18. A process according to any one of claims 10 to 17, wherein the ester substituted with a hydroxy group comprises a highly-branched hydroxy-ester comprising from 9 to 25 carbon atoms.

19. A process according to any one of claims 10 to 18, wherein the hydroxy functionality of the ester substituted with a hydroxy group resides on R^8, and where R^8 is a branched aliphatic group.

20. A process according to any one of claims 10 to 19, wherein the ester substituted with a hydroxy group is 2,2,4-trimethyl-1,3-pentanediol mono-isobutyrate or 2,2,4-trimethyl-1,3-pentanediol monobenzoate.